What is claimed is:

1. A vibration-type driving device comprising:

a vibration element further comprising,

a driving member and

an electro-mechanical energy conversion element having an electrode, wherein the electro-mechanical energy conversion element is capable of using a driving signal from the electrode to displace the driving member; and

a driven element in contact with the driving member of said vibration element,

wherein said vibration element uses the driving signal to excite vibrations in a first and a second flexural vibration mode,

wherein the first flexural vibration mode is capable of generating a node in a direction, which is non-parallel to a direction of node generation by the second flexural vibration mode.

2. A vibration-type driving device according to claim 1, wherein the direction of node generation by the first flexural vibration mode is perpendicular to the direction of node generation by the second flexural vibration mode.

3. A vibration-type driving device according to claim 2, wherein said driving member is composed of a protrusion.

4. A vibration-type driving device according to claim 2, wherein said driving member is disposed in a position where a node in the first flexural vibration mode is generated and an antinode in the second flexural vibration mode is generated.

5. A vibration-type driving device according to claim 2, wherein said driving member is disposed in the vicinity of a position where a node in the first flexural vibration mode is generated and an antinode in the second flexural vibration mode is generated.

6. A vibration-type driving device according to claim 2, wherein the order of the first flexural vibration mode is an even-number-th order, and the order of the second flexural vibration mode is an odd-number-th order.

7. A vibration-type driving device according to claim 2, wherein said electro-mechanical energy conversion element is a piezoelectric element composed of a plurality of layers.

8. A vibration-type driving device according to claim 7, wherein said piezoelectric element has a plurality of driving regions that receive respective different driving signals as externally input, and the plurality of driving regions each are subjected to polarization treatment in the thickness direction of said piezoelectric element.

9. A vibration-type driving device according to claim 7, wherein said piezoelectric element has two driving regions to excite vibrations in the first and second flexural vibration modes, and the two driving regions are formed in positions into which said piezoelectric element is divided in the thickness direction thereof and are arranged to generate excitation forces in opposite directions in response to inputting of the driving signal.

10. A vibration-type driving device comprising:

a vibration element including an elastic body and an electro-mechanical energy conversion element having at least two electrodes capable of causing said elastic body to excite vibrations with two driving voltages of respective phases having the same frequency applied to the two electrodes; and

a driven element that is kept in contact with said elastic body,

wherein said vibration element is capable of forming a first flexural vibration mode in response to inputting of the two driving voltages of respective phases that are made the same and is capable of forming a second flexural vibration mode in response to inputting of the two driving voltages of respective phases that are made opposite to each other, and

wherein the first flexural vibration mode and the second flexural vibration mode are combined to drive said vibration element and said driven element relative to each other.

11. A vibration-type driving device according to claim 10, wherein portions of the electro-mechanical energy conversion element to which the two driving voltages are applied through the two electrodes are subjected to polarization treatment such that respective directions of polarization thereof become the same.

12. A vibration-type driving device according to claim 10, wherein said elastic body is formed into a rectangular shape, and wherein the first flexural vibration mode is an odd-number-th order vibration mode in which vibrations are caused in a direction perpendicular to the longitudinal direction of said vibration element, and the second flexural vibration mode is an even-number-th order vibration mode in which vibrations are caused in the longitudinal direction of said vibration element.

13. A vibration-type driving device according to claim 10, wherein a direction of generation of a node in the first flexural vibration mode is perpendicular to a direction of generation of a node in the second flexural vibration mode.

14. A control apparatus comprising:

a vibration-type driving device further comprising

a vibration element including an elastic body and an electro-mechanical energy conversion element having at

least two electrodes and arranged to cause said elastic body to excite vibrations with two driving voltages of respective phases having the same frequency applied to the two electrodes;

a driven element that is kept in contact with said elastic body,

wherein said vibration element is capable of forming a first flexural vibration mode in response to inputting of the two driving voltages of respective phases that are made the same and is capable of forming a second flexural vibration mode in response to inputting of the two driving voltages of respective phases that are made opposite to each other, and

wherein the first flexural vibration mode and the second flexural vibration mode are combined to drive said vibration element and said driven element relative to each other; and

an arithmetic circuit for controlling the driving of the vibration-type driving device.

15. A control apparatus according to claim 14, wherein said arithmetic circuit changes a direction of relative movement of said vibration element and said driven element by changing a phase difference between the two driving voltages of respective phases, and changes a speed of relative driving of said vibration element and said driven element by changing a frequency of the two driving signals.

16. A control apparatus according to claim 14, wherein

said arithmetic circuit controls a speed of relative driving of said vibration element and said driven element on the basis of a phase difference and an amplitude of the two driving signals of respective phases.

17. A control apparatus according to claim 14, wherein said arithmetic circuit is capable of setting an amplitude of the two driving voltages in such a manner that, relative to variation of a phase difference of the two driving voltages of respective phases, a vibration amplitude in one mode of the first flexural vibration mode and the second flexural vibration mode becomes unvarying and a vibration amplitude in the other mode varies, and said arithmetic circuit changes a speed and direction of relative driving of said vibration element and said driven element by changing the phase difference of the two driving voltages of respective phases.

18. An electronic equipment comprising:

a vibration-type driving device further comprising

a vibration element including an elastic body and an electro-mechanical energy conversion element having at least two electrodes and arranged to cause said elastic body to excite vibrations with two driving voltages of respective phases having the same frequency applied to the two electrodes;

a driven element that is kept in contact with said elastic body,

wherein said vibration element is capable of

forming a first flexural vibration mode in response to inputting of the two driving voltages of respective phases that are made the same and is capable of forming a second flexural vibration mode in response to inputting of the two driving voltages of respective phases that are made opposite to each other, and

wherein the first flexural vibration mode and the second flexural vibration mode are combined to drive said vibration element and said driven element relative to each other; and

an arithmetic circuit for controlling the driving of the vibration-type driving device,

wherein said arithmetic circuit changes a direction of relative movement of said vibration element and said driven element by changing a phase difference between the two driving voltages of respective phases, and changes a speed of relative driving of said vibration element and said driven element.

19. An electronic equipment according to claim 18, wherein the vibration-type driving device is used as a drive source.